

What is claimed is:

1. A shield usable in a sputter reactor, comprising  
an outer wall extending generally parallel to an axis and including a  
plurality of perforations therethrough to allow gas to reach from an outer side of  
said outer wall to an inner side of said outer wall;  
an inner wall extending generally parallel to said axis and closer to said  
axis than said outer wall; and  
a bottom wall connecting said inner and outer walls.
2. The shield of Claim 1, wherein said perforations are round.
3. The shield of Claim 1, wherein said outer wall extends farther along  
said axis than does said inner wall.
4. The shield of Claim 1 which is generally symmetric about said axis.
5. The shield of Claim 1 which is formed from stainless steel.
6. A shield assembly including the shield of Claim 1 as a first shield and  
further comprising a second shield fittable within the inner wall of said  
first shield to cover said perforations.
7. The shield assembly of Claim 6, wherein said second shield has two  
generally straight portions connected through a curved portion.
8. In a sputter reactor having sidewalls arranged about a central axis, a  
target of a material to be sputtered, and a substrate to be sputter deposited  
separated from said target along said central axis,  
**THE IMPROVEMENT COMPRISING**  
a shield fittable within said sidewalls and comprising:

an outer wall extending generally parallel to said central axis and including a plurality of perforations therethrough to allow gas to reach from an outer side of said outer wall to an inner side of said outer wall;

an inner wall extending generally parallel to said axis and closer to said axis than said outer wall; and

a bottom wall connecting said inner and outer walls.

9. The shield of Claim 8, wherein said perforations are round.

10. The shield of Claim 8, wherein said outer wall extends farther along said central axis than does said inner wall.

11. The shield of Claim 8 which is generally symmetric about said central axis.

12. The shield of Claim 8 which is formed from stainless steel.

13. A shield assembly including the shield of Claim 8 as a first shield and further comprising a second shield fittable within the inner wall of said first shield to cover said perforations.

14. The shield assembly of Claim 13, wherein said second shield has two generally straight portions connected through a curved portion.